RESEARCH HIGHLIGHT

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Socio-economic Series 08-010

Neighbourhood Effects and Concentration Levels of Aboriginal People in Large Canadian Cities

INTRODUCTION

Concerns about the effects of neighbourhoods on life chances have a long history in academic debates, but there has been no work that specifically considers effects on Aboriginal individuals living in Aboriginal neighbourhoods in Canadian cities. This highlight summarizes a study that investigated the housing patterns of urban Aboriginal people and the relation of the patterns to socio-economic outcomes.

Based on the literature, the study team derived a model of neighbourhood effects that had four types of positive and negative outcomes as well as mediating factors.

The study used focus groups to test the model for relevance to the urban Aboriginal population. The research also examined Census variables for use as indicators of the outcomes and for mediating factors.

Using 2001 Census data, statistics describing residential settlement patterns of Aboriginal people were generated for major urban areas with substantial Aboriginal populations. This made it possible to calculate indices of spatial distributions (evenness, clustering, concentration, centrality and exposure) of the population at different levels of geographic aggregation. The statistics were then analyzed with the mediating factor variables in a stepwise regression against the outcome variables.

NEIGHBOURHOOD EFFECTS: A LITERATURE REVIEW AND A MODEL

The study reviewed literature addressing neighbourhood outcomes associated with two types of concentration: concentration by ethnicity or culture and concentration by race and poverty. This literature suggested that there are also mediating factors that can affect whether concentration has positive or negative effects.

The literature on concentration by ethnicity or culture identified mainly positive outcomes, including the maintenance of a distinct culture, improvement in access to employment (through ethnic businesses); a change in attitudes toward an area (it becomes associated with a particular group); and an improvement in the quality of services through the emergence of culturally appropriate services. The mediating factors that result in positive outcomes include growing urban economies, group capacity and positive attitudes toward particular minority groups.

The literature on concentration by race and poverty identified mainly negative consequences, including the maintenance or emergence of cultures that were oppositional to mainstream cultures; a change in access to employment as employers moved out of the area; stigmatization of the area; and a change in access to quality services as services were overwhelmed or fled. The mediating factors that contribute to negative outcomes include negative attitudes toward racial groups, erosion of a social safety net and declining urban economies.

The model developed from this review identified four main outcomes that could either be positive or negative and thus be used as indicators:

1. **Emergence or maintenance of distinct cultures.**
   Positive—support for the maintenance of distinct cultural practices.
   Negative—the development of cultures that are oppositional to mainstream societal values.

2. **Change in access to employment.**
   Positive—increase in employment opportunities.
   Negative—movement of employment opportunities out of the area.

3. **Change in attitudes toward an area.**
   Positive—the area is seen as more desirable.
   Negative—neighbourhoods are stigmatized.

4. **Change in access to quality of services.**
   Positive—provision of culturally appropriate services that can meet the particular needs of minority groups.
   Negative—existing services are overwhelmed or flee.

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The model identified four mediating factors:

1. The characteristics of families and individuals.
2. Attitudes toward particular minority groups.
3. The characteristics of urban areas, including community capacity and the nature of urban economies.
4. The nature of the social safety net.

URBAN ABORIGINAL PEOPLE'S EVALUATION OF THE RELEVANCE OF EXISTING MODELS OF NEIGHBOURHOOD EFFECTS

Several interviews and focus groups were conducted with urban Aboriginal representatives in Winnipeg and Saskatoon to determine if the model of neighbourhood effects derived from the literature was relevant.

The idea of "neighbourhood effects" was extremely difficult to communicate. The difficulty suggests that research should use statistical tools to explore this issue whenever possible. Participants expressed considerable discomfort with research that associated particular effects with levels of concentration of Aboriginal people.

Aboriginal participants said that neither model could be entirely adopted, although elements of each applied in part.

Participants felt that concentrations of Aboriginal residents could reinforce Aboriginal identities and support informal networks. They emphasized that negative effects associated with concentration were the result of poverty, lack of funding, support or opportunities.

Further, they said that some Aboriginal businesses were beginning to emerge in areas of Aboriginal concentration, but not enough to change access to employment. They did not feel that businesses had fled from Aboriginal neighbourhoods.

With respect to changes in attitudes toward an area with relatively higher concentrations of Aboriginal people, participants felt that this would make that area more desirable and comfortable for some people and that it would have the opposite effect for others.

Finally, participants associated an increase in Aboriginal services with areas of concentration, but indicated that this increase was not significant enough to make a difference in outcomes. They said that services had not declined as a result of concentrations of Aboriginal residents.

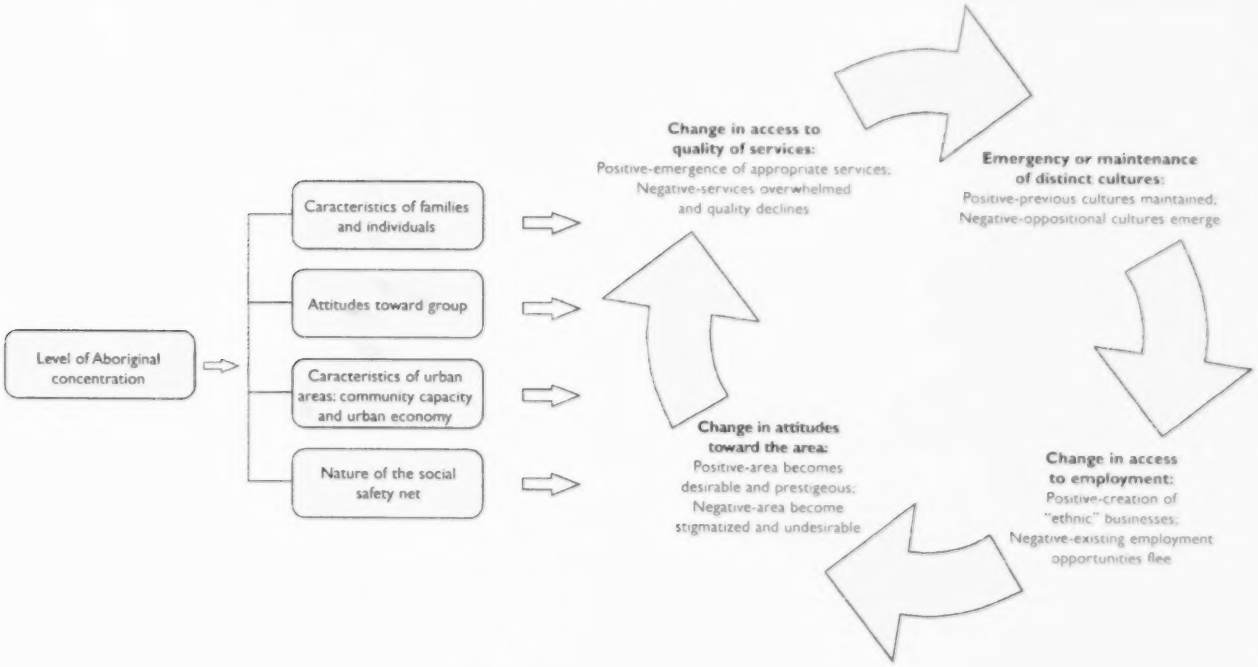
Level of Aboriginal concentration
Caracteristics of families and individuals
Attitudes toward group
Caracteristics of urban areas: community capacity and urban economy
Nature of the social safety net
Change in access to quality of services:
Positive-emergence of appropriate services;
Negative-services overwhelmed and quality declines
Emergency or maintenance of distinct cultures:
Positive-previous cultures maintained;
Negative-oppositional cultures emerge
Change in access to employment:
Positive-creation of "ethnic" businesses;
Negative-existing employment opportunities flee
Change in attitudes toward the area:
Positive-area becomes desirable and prestigeous;
Negative-area become stigmatized and undesirable

Figure 1 Model of neighbourhood effects

DATA AND METHODS

Each part of the analysis required some decisions regarding data and method. Because different census definitions of "Aboriginal" result in different averages of socio-economic indicators for the group, the study compared concentration indices for the Aboriginal identity population to those of the single-origin Aboriginal ancestry population.

The comparison population group for measures of concentration was the white Caucasian population, consistent with the *Employment Equity Act*, 1995. Because some concentration indices are sensitive to geographic scale, measures calculated at the census tract and dissemination area levels were also compared. The concentration indices were based on Massey and Denton's (1988) classic paper[1] that argued that residential concentration had five dimensions—evenness, exposure, concentration, clustering and centralization.

Given budget constraints, it was not possible to obtain socio-economic data for individuals, so the data was aggregated at the census tract level. The need to minimize the number of cells with values of zero due to area suppression, cell suppression or random rounding partially affected the selection of variables that the study used to measure neighborhood effects. It was not possible to measure changes in attitudes toward an area using census data.

The variables selected to measure neighbourhood effects of Aboriginal concentration included:

- emergence or maintenance of distinct cultures;
- change in access to employment;
- change in access to quality of services.

It was necessary to make some decisions regarding which mediating factors to include. While there is debate about which individual characteristics are related to which neighbourhood effects, this study included household type, education, employment, poverty, age and mobility.

Where the dependent variable included a measure of education or employment, the independent variables linked to employment or education were not used because of the high degree of collinearity this would create.

Data was not available to explore geographic variations in attitudes toward Aboriginal people or variations in the nature of the social safety net. The study used a ratio of advertised Aboriginal community organizations and programs to the total urban Aboriginal population as a measure of community capacity, and calculated the percentage change in manufacturing and in business services between 1981 and 2001 as a measure of growth or decline in urban economies.

The analysis followed a step-by-step procedure that initially entered only levels of concentration into analysis and assessed their importance for neighbourhood outcomes. Then, the other mediating factors were added to assess their effects on the significance of the relationship between concentration and neighbourhood outcomes. The analysis was limited to census tracts with 250[2] or more Aboriginal residents because many variable values for census tracts with smaller Aboriginal populations equalled zero. This substantially decreases the possibility of uncovering any significant relationships between dependent and independent variables.

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[1] Massey, D. S., Denton, N. A. (1988). "The Dimensions of Residential Segregation", *Social Forces*.

[2] This number was selected because Statistics Canada applies cell and area suppression to areas with a population lower than 250 for the majority of socio-economic variables. Also, the larger the population of an area, the less it is affected by the random rounding (Statistics Canada 2002).

CONCENTRATION PATTERNS OF ABORIGINAL PEOPLE IN CANADIAN CENSUS METROPOLITAN AREAS (CMA)

Using information for the Aboriginal identity population at the census tract level, settlement patterns were generally characterized by:

- even to moderately even distribution of the Aboriginal population across census tracts;
- low likelihoods of exposure of Aboriginal people only to other Aboriginal people;
- relatively high levels of concentration—Aboriginal people occupy a relatively small amount of urban space;
- low likelihood that census tracts inhabited by Aboriginal people adjoin each other; and
- high tendencies to live close to the city centre in Prairie cities and moderate tendencies to live near the city centre in the eastern cities and in Vancouver.

Using the Aboriginal ancestry instead of the Aboriginal identity definition resulted in concentration indices that were slightly higher. However, these differences were small. Concentration indices calculated with dissemination area data were slightly higher than those calculated using census tract data.

Because of these results, the Aboriginal identity population data at the census tract level was chosen for subsequent analysis of the relationship between socio-economic outcomes and levels of concentration.

To summarize concentration patterns, an average rank of concentration indices was calculated for each city, with the lowest values receiving a 1 and the highest a 9.

LEVELS OF CONCENTRATION AND NEIGHBOURHOOD OUTCOMES

The analysis explored the three main effects that could be assessed using census data:

1. the emergence or maintenance of distinct cultures;
2. access to employment; and
3. quality of services.

The analysis attempted to assess whether different levels of concentration were associated with these effects, either positively or negatively.

None of the models explained a large proportion of the variation in neighbourhood outcomes. In the models that explained the highest amounts of variation, levels of concentration were either weakly significant, or not significant at all. Overall, individual and family characteristics explained the largest amount of variation in neighbourhood effects. Nevertheless, there were some significant relationships between metropolitan levels of concentration and measures of neighbourhood outcomes.

Outcome—Emergence of Distinct Cultures

There is no evidence of the emergence of more supportive cultures in cities with higher levels of concentration. These areas do not seem to have the characteristics of some ethnic clusters where ethnic groups create local, culturally supportive organizations and activities.

However, the measure used here (proportion of Aboriginal residents in a census tract with an Aboriginal language as mother tongue) is a very indirect indicator. The lack of a significant relationship should not be interpreted as an indication that these activities and networks do not exist—just that they could not be measured with the data available.

On the other hand, there is also no evidence that oppositional cultures are emerging in cities with higher levels of concentration. The dependent variable used to measure this—labour force participation rates of adult Aboriginal males—corresponds to measures used in the U.S. literature to identify dysfunctional adaptive strategies emerging in "underclass ghetto" areas. This suggests that the processes emerging in U.S. cities are not occurring in Canadian cities.

Outcome-Access to Employment

Fewer individuals were self-employed in cities that were more concentrated. This supports the comments in focus groups that Aboriginal businesses had not yet emerged in areas of Aboriginal concentration.

The analysis also showed that in cities with higher concentrations of Aboriginal residents, there were fewer employed Aboriginal people who lived and worked in the same census tract. This finding is consistent with the trend toward a migration of jobs out of the inner city in many metropolitan areas. Individual poverty was significantly related to this variable, suggesting that there may be a link between areas of lower-cost housing, the location of low-income Aboriginal residents and a lack of employment opportunities in these areas. The dynamics of these linkages are complex and beyond the scope of this paper to explore.

Outcome—Access to Services

The data available to assess this outcome did not suggest that organizations and programs were more likely to emerge in cities with higher levels of concentration. However it must be noted that the variable used to measure this—Aboriginal organizations and programs—does not include more informal types of support networks and relationships. At the same time, there is no evidence suggesting that concentration levels are associated with declining service quality as measured by drop-out rates.

CONCLUSION

The analysis in this study suggests that neighborhood outcomes associated with Aboriginal concentration in Canadian cities do not fit easily into models of neighborhood effects for other populations. At present, concentration does not seem to be associated with the emergence of businesses, culturally focused organizations, or services that are associated with areas of ethnic concentration in the literature. At the same time, higher levels of Aboriginal concentration are not consistently associated with the emergence of oppositional cultures found in certain inner city neighborhoods in U.S. cities. It is therefore important to examine the processes and dynamics occurring among the urban Aboriginal population in Canadian cities as distinct processes that cannot be extrapolated from the experiences of other minorities or ethnic groups.

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Research Report: *Neighbourhood Effects and Levels of Segregation for Aboriginal People in Large Cities in Canada*

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